Title: CONDUCTIVE MATERIAL COMPOSITIONS, APPARATUS, SYSTEMS, AND METHODS

# IN THE CLAIMS

Please amend the claims as follows:

(Currently Amended) A component lead comprising:

a lead finish comprising between about 78% and 80% by weight of lead, between about 9% and about 11% by weight of antimony, between 5% and about 12% by weight of silver about 82% 84% by weight of lead, about 2% 4% by weight of silver, about 9% 11% by weight of antimony, and a balance of tin disposed over the component lead.

# 2. - 3. (Canceled)

- (Previously Presented) The lead of claim 1, wherein the component lead is to be coupled
  to a lead of a surface mount component.
- (Previously Presented) The lead of claim 1, wherein the component lead is coupled to a
  downhole electronic assembly.
- 6. (Currently Amended) A package structure comprising:

a package; and

- a plurality of leads coupled to a circuit included in the package and having a lead finish comprising between about 78% and 80% by weight of lead, between about 9% and about 11% by weight of antimony, between 5% and about 12% by weight of silver about 82% 84% by weight of lead, about 2% 4% by weight of silver, about 9% 11% by weight of antimony, and a balance of tin.
- 7. (Withdrawn) The package structure of claim 6, wherein the circuit is included in a substrate

(Withdrawn) The package structure of claim 7, wherein the package structure is part of a 8 downhole electronic assembly.

### 9 (Currently Amended) A circuit board, comprising:

a processor; and

a circuit coupled to the processor and included in a package structure having a plurality leads having a lead finish comprising between about 78% and 80% by weight of lead, between about 9% and about 11% by weight of antimony, between 5% and about 12% by weight of silver about 82% 84% by weight of lead, about 2%-4% by weight of silver, about 9%-11% by weight of antimony, and a balance of tin.

- (Withdrawn) The circuit board of claim 9, wherein the circuit includes a memory. 10
- (Withdrawn) The circuit board of claim 9, wherein the circuit includes a digital-to-11 analog converter.

### 12. (Currently Amended) A system comprising:

a component lead having a lead finish disposed over the component lead, the second lead finish comprising between about 78% and 80% by weight of lead, between about 9% and about 11% by weight of antimony, between 5% and about 12% by weight of silver about 82% 84% by weight of lead, about 2% 4% by weight of silver, about 9% 11% by weight of antimony, and a balance of tine and

a downhole transducer coupled to the component lead.

#### 13. (Canceled)

(Previously Presented) The system of claim 12, wherein the downhole transducer is 14. selected from the group consisting of a downhole temperature indicator, a downhole vibration sensor, a pressure sensor, an accelerometer, and a fluxgate.

- (Original) The system of claim 12, wherein the downhole transducer is to measure a 15. subsurface characteristic that is selected from a group consisting of a downhole temperature, a downhole pressure, a resistivity of a subsurface formation, a porosity of a subsurface formation, a diameter of a borehole, and a shape of the borehole.
- (Original) The system of claim 12, further comprising: 16. a processor coupled to the lead.
- (Original) The system of claim 12, further comprising: 17. an amplifier coupled to the lead.
- 18. 39. (Canceled).
- (Currently Amended) An assembly comprising: 40. a downhole transducer coupled to a circuit trace included in a circuit attached to a composition including a first amount between about 78% and 80% about 82% by weight of lead, a second amount between about 9% and about 11% by weight of antimony, a third amount between 5% about 3% and about 12% by weight of silver, and a balance of tin.
- (Original) The assembly of claim 40, further comprising: 41 a processor to be communicatively coupled to the circuit.
- (Original) The assembly of claim 40, wherein the circuit includes a data acquisition 42 system.
- (Original) The assembly of claim 40, wherein the circuit includes a filter. 43.
- 44. 46. (Canceled)